

Health Pathways

Newsletter of the Health Professions Career Opportunity Program

July 2000

Volume 22, No. 12

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Apply Early To Medical School!



Renewal Notice

HCTP Insert



“WHAT DO YOU MEAN, I APPLIED TOO LATE? I BEAT THE DEADLINE!”

(Quote from many, many unsuccessful medical school applicants)

Everyone would acknowledge that the process of applying to medical school is complicated and time-consuming, but it is an absolutely necessary step in reaching your dream of becoming a doctor! If you are confident in your decision to pursue a career in medicine, and if you have an organized and dedicated approach, you can make the application experience interesting, informative, fun, rewarding, and successful.

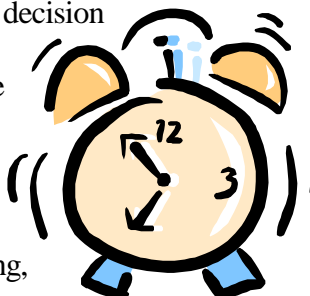
As a former Health Professions Advisor and current Director of Admissions at the University of Chicago Pritzker School of Medicine, I have had the honor of working with many students in their applications to medical school. The information provided will give you some “insider tips” on the admissions cycle, and will help you develop a plan to make an early and wise application.

Remember the words of Benjamin Franklin, “Early to bed, early to rise, makes a man healthy, wealthy and wise”? Consider, “Early to apply, early to complete, makes a medical school applicant healthy, wealthy, and wise.” It doesn’t rhyme as well, but it’s more helpful in applying to medical school!

Over the years, I hear the same excuses for why students applied so late in the process. In planning your application, be certain to avoid these common pitfalls. If you find yourself thinking as these

applicants did, make the courageous and wise decision to apply early — next year.

“I just decided that I want to be a doctor”



The decision to become a doctor is a life-long commitment, with significant consequences for you, your family, and your future patients. This decision should only be made after careful, thorough, honest self-examination and career exploration. If you “just decided to be a doctor,” wait and apply early next year.

“I had to save money for the application fees”

The application fees and interview travel expenses for the medical school application can be a significant barrier; they must be part of your budget for the applica-

(See *Deadline* on page 4)

Career Opportunities for Nurses

Traditionally, the greatest number of nurses work in a hospital setting. However, nursing practice has broadened, and today we find more nurses working in the community and in the academic field.

Hospital setting:

Within the hospital setting a variety of areas are available to the nurse, including:

Medicine

Caring for adults with illnesses which could include the heart, lungs, and kidneys. It includes management of patients with acquired immune deficiency syndrome (AIDS) and other transmittable diseases, substance abuse, and other related health problems that do not require surgery.

Pediatrics

Caring of infant and child. As a pediatric nurse, care is provided for both the acute and chronically ill child. Children receive care from a variety of pediatric services, including oncology, pulmonary, renal, orthopedics, neurology, trauma, gastrointestinal, and cardiology. Due to the diversity and complexity of the children's health care needs, a multi-disciplinary staff works together to address the child's needs as well as the family's ability to cope with the child's illness.

Surgery

Caring for patients prior to surgery (preoperative surgical unit), during surgery (operating room), and immediately following surgery (recovery room).



Obstetrics

Caring for the mother and child before, during, and after childbirth.

Orthopedics

Caring for patients with skeletal (bone), muscular, and joint problems. Often trauma victims are placed here, either directly from the emergency room or transferred from surgery.

Gerontology

Caring for elderly patients and health issues that arise as a result of the aging process.

Critical Care

Caring for the critically ill is a highly specialized field requiring advanced technical and clinical skills in the care and management of the acutely ill patient. Most nurses may enter this field following completion of at least one year of nursing on a Medical/Surgical Unit. Special courses are provided by hospitals to prepare nurses for this advanced level of practice. Some of the most common areas of specialization in critical care are:

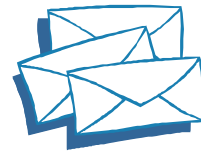
Medical/Surgical Intensive Care

Caring for patients following major surgeries, or patients with acute medical problems: ketoacidosis, AIDS, liver failure, head injuries, shock, stroke, and diseases of unknown origin.

Cardiovascular Intensive Care

Caring for patients with various heart conditions including heart attack, heart failure, and severe hypertension (high blood pressure).

(See *Nurses* on page 6)



Do you have a story or suggestions for *Health Pathways*? We welcome your contributions. Mail us your ideas, letters, or articles today! Announcements of scheduled events need to be sent to us at least six months in advance to appear in the newsletter. Be sure to include your name and address on all correspondence. The Health Professions Career Opportunity Program retains the right to edit all materials. Contact us at:

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Non-Acceptance To Medical School

Rejection is often not easy to handle, but don't view it as a failure. It doesn't mean the end. For some, this will be the first major setback. However, rejection gives the applicant time to re-examine career goals and practice constructive self-criticism. Use the experience to re-evaluate and work on your strengths and weaknesses to prepare yourself for later acceptance.

What to do first

1. If rejected, contact the school to determine why. Ask how you can improve. Use the information to strengthen your weaknesses. Ask your support group to help you, and talk with current medical students who are willing to analyze your situation and give you guidance.
2. Don't let your emotions get the best of you. Rejection doesn't mean the end of your dreams.

Look at it this way:

- In 1980, 43,000 applicants submitted approximately 400,000 applications for 16,000 seats in 114 medical schools.

- One-quarter of those accepted to medical school were re-applicants.
- Forty percent of rejected applicants filed new applications.
- One-third of all reapplicants were accepted. You also can be accepted.
- Also, you have friends. Don't forget who they are. Keep in touch with former professors. Let them know your progress in jobs and graduate work. You may someday need one of these support people to write a stronger letter of recommendation.

Reapply

1. Learn more about the application process.
2. Consider carefully the schools you may apply to. Do they have a good reputation for accepting minority applicants?
3. Type your application and make it neat and clean.
4. Write a well thought out, grammatically correct, personal statement. Each paragraph should be concise and organized to present the best possible impression of yourself.
5. Include in your personal statement past and present accomplishments as well as future ambitions.
6. If your MCAT score was too low, prepare to retake it. Focus all of your time for at least three months on studying for this exam — don't work, don't go to school.

7. Think of every way possible to improve your application. Ask your support team to review it and offer suggestions.

Only you can say whether your desire to become a physician is worth additional effort. Decide to reapply for you. If you do decide that your commitment and desire are strong enough, consider the following alternatives:

Alternative directions

Undergraduate Education

Continue your studies and take advanced-level courses. You may be able to improve your GPA by taking advanced science courses or other classes where you need improvement.

Graduate School

Enroll, choosing a related field (physiology, for example) that can be applicable to medicine when you later apply to medical school.

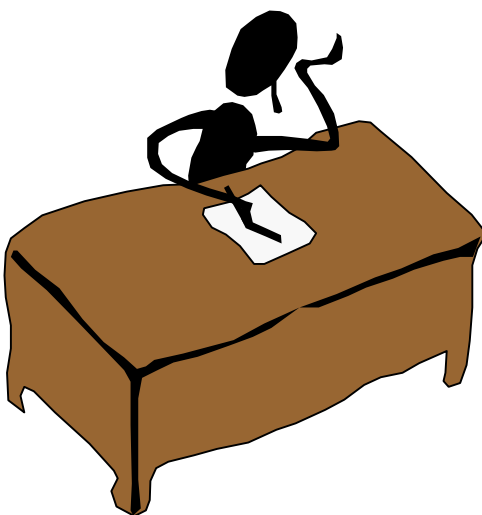
Work

Work in a health-related field that demonstrates your continuing interest in a health career. However, if you were rejected because of academic deficiencies, it would be better to remain in school and work on improving your academic record.

Public Health School

Pursue a degree in public health. Public health includes over a dozen specialties — each area well suited for people with a variety of interests and skills. Many of the specialties train people for skills vitally needed in minority communities. The knowledge and skills acquired will serve you later as a medical student and physician.

(See *Medical School* on next page)



(*Medical School*, from page 3)

Postbaccalaureate and Summer Programs

Postbaccalaureate programs offer the underrepresented minority or disadvantaged student the opportunity to increase his or her chances for entry into medical, dental, or other health professional school. Such programs consist of intensive introductory courses in math and the basic sciences to improve knowledge in those areas and prepare the student for graduate work. One to two years in length, many programs are tailored to the needs of each student. Summer enrichment programs help prepare minority applicants for entry to health professional schools and graduate programs. Participants receive a variety of academic and nonacademic support, counseling, and motivation. Concentrated review courses are offered in biology, chemistry, physics, mathematics, test taking, and study- and writing-skills development. Many programs offer hands-on experience in clinical preceptorials and lab research. Developmental workshops, entrance requirements seminars, admission exams, financial aid, and support networks are part of what is offered.

Enroll in a program that demonstrates your ability to perform well in an intensive academic curriculum. These programs help you prepare for the MCAT. They usually comprise an intensive fundamental review of physics, chemistry, biology, and other areas related to the MCAT.

Information taken from: "Minorities In Medicine — a guide for premedical students." To request a copy, write to: HPCOP, 1600 Ninth Street, Room 441, Sacramento, California 95814. (916) 654-1730.

(*Deadline*, from page 1)

tion year. Both AMCAS and MCAT offer fee reduction programs that require careful attention to early deadlines. Financial constraints, however, should not prevent you from applying to medical school. Your Health Professions Advisor and school Financial-Aid Office are important resources as you develop an application budget. If money is a concern for you, it is especially important to apply only once, with the strongest application you can present. This means waiting to apply early next year if your budget does not allow you to apply early this year.

"I was taking too many classes that semester"

In many ways you should see the application process as adding another class, with lab, to your time schedule! You should plan your curriculum with this in mind, and be smart about your course selection. Even if you complete the AMCAS application before your school term begins, the successful applicant will have many secondary applications to complete after classes begin. If you apply late, sacrifice strong grades because of attention to the application process, and then need to apply again next year, you will have significantly weakened your application. Be smart — wait to apply when you can give it the needed time. Then, do it early!

"I wasn't ready to take the MCAT in April, and I wanted to see my August scores before spending the money to apply"

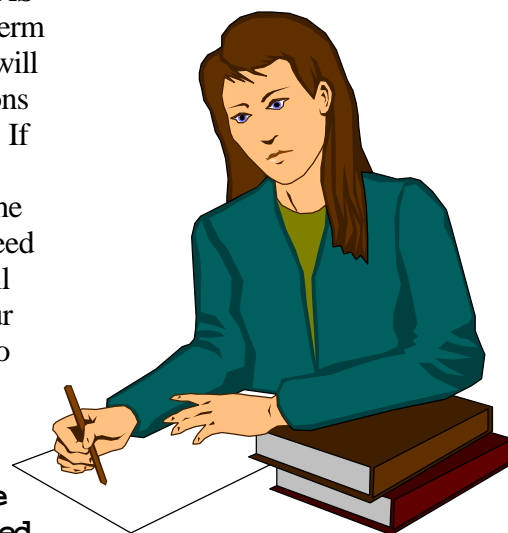
This approach is very seldom a good one. Talk with your Health

Professions Advisor and get input from your target medical schools before making this decision. If you want to wait to see your August scores, then it is often best to wait and apply early next year.

"I didn't know applying now was late; I beat the deadline by two weeks"

It is important to not let a lack of knowledge interfere with your dream of becoming a doctor. Turn to every available resource, and ask, ask, ask! Even ask your resources to tell you what you are forgetting to ask! Do not try to complete this process by yourself. Applying to medical school is not a "do it yourself" project. Wait until you have all the needed information, and then apply early.

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UCSF Study Finds Many Areas in California Have a Dentist Shortage

Many of California's rural and urban communities may not have enough dentists, which could limit access to dental care, according to a UC San Francisco report released recently by the Center for California Health Workforce Studies.

The study found that out of 487 Medical Service Study Areas — geographic regions defined by state agencies for the administration of various programs — 97, or 20 percent, are currently at or below the federal standard of one primary care dentist for every 5,000 people. Of the 97 areas that have dentist shortages, 66 are rural and 31 are urban. Thirty-two Medical Service Study Areas, most of which are rural, do not have any dentists at all.

In addition, regions that have a shortage of dentists tend to have a higher percentage of minorities, lower median incomes, and a higher percentage of children. While there are a number of statewide programs aimed at increasing access to dental care, few of them work to place dentists in underserved areas, according to the study's authors.

"There is a maldistribution of dentists," said project director at the UCSF Center for California Health Workforce Studies, Elizabeth Mertz, MPA. "Existing programs aimed at correcting that distribution have not been successful for a variety of reasons. The National Health Service Corp, a federal program that places health professionals in shortage areas, simply does not have the resources

to place dentists in all shortage areas. The federal and state governments need to look closely at why shortages persist in these areas. Dentist shortages are of particular concern because they generally occur in communities with vulnerable populations in greater need of dental care."

According to the report, some of the Bay Area regions that have a dentist shortage are south San Jose, San Francisco's Visitation Valley, and Oakland's Fruitvale neighborhood.



"The study had two goals. The first was to document the geographic distribution of dentists and show, based on federal standards, that there are areas in California that have a dentist shortage and may be eligible for federal money to help," Mertz said. "The second goal was to document what the shortage communities were and what characteristics they had."

The regions identified in the study could be eligible for designation as a Dental Health Professional Shortage Area, which means the National Health Service Corp. could place more dentists in those areas, Mertz said.

Access to dental services in California has been an issue of

increasing concern to federal and state policy makers in recent years, according to the report. Recent research indicates that many Californians do not receive regular dental care and, compounding the problem, 44 percent of California adults had no dental insurance in 1995.

Other data shows:

- *More than half of all California children — twice the number of children in other states — have untreated tooth decay.

- *Twenty-eight percent of the state's children have no dental insurance — roughly twice the number of children without medical insurance.

- *Nearly half of all California preschool children and 12 percent of all high school students have never been to a dentist.

Some of the report's recommendations include: increasing the supply of dentists in underserved areas and conducting more research to find ways to improve access to dental care.

Co-authors of the report are Kevin Grumbach, MD, director of UCSF's Center for California Health Workforce Studies and professor of family and community medicine, Janet Coffman, MPP, center manager, and Laurie MacIntosh, MSW, research analyst for the Office of Statewide Health Planning and Development (OSHPD).

The study was funded by the Center for Health Workforce Information and Analysis, U.S. Bureau of the Health Professions.

(*Nurses*, from page 2)

Neonatal/Pediatric Intensive Care (PIC)

Caring for premature infants, newborns, and children. This specialty is especially designed for the critically ill child. The staff, equipment and services are specifically designed to provide close observation, monitoring, and specialized care for the seriously ill infant and child up to the age of 15 years. The nursing staff is composed of specially trained and experienced nurses who provide in-depth nursing care to the critically ill child.

Neurological Unit

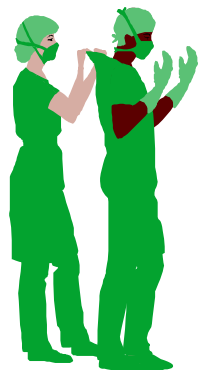
Caring for patients with serious diseases or injuries of the brain. Patients are victims of strokes, of motor vehicle accidents with head trauma, or injury to the spinal cord.

Burn Unit

Caring for patients following burn injuries. The burn unit is devoted to the care of the burn victim at any stage of injury. The nurse is responsible for the burn patients' entire course of care beginning from the acute stage through rehabilitation and burn care.

Emergency Room (ER)/Trauma Unit

Caring for patients with serious illnesses or traumatic injuries. This specialty also may include emergency transport programs for transportation of critically ill patients by air (helicopter or plane) or ground ambulance (Mobile Intensive Care Unit). It involves the treatment for a variety of problems, ranging from stabbing or gunshot wounds, motor vehicle accidents, to an asthmatic attack.



Other Specialty Areas:

Kidney Transplant Unit

Caring of patients with kidney failure requiring specialized treatments known as dialysis or patients who have undergone kidney transplant.

Oncology

Caring of the patient with different types of cancer. These patients require extensive treatment and may be in the hospital for six weeks.

Ambulatory Surgery Unit (ASU)

Most patients come in for a one-day stay and go through admission and preoperation assessment, surgery, post-operation care, and discharge. A variety of procedures are performed including eye, ear, nose, and throat surgery and others.

Additional Hospital Roles:

Home Care Coordinator

Organizing and administering delivery of health care to patients in the home environment.

Nursing Supervisor

Organizing, assigning, and supervising nursing care activities in a hospital or outpatient setting.

Infection Control Nurse

Investigation and prevention of infectious diseases.

Intravenous (IV) Nurse Therapist

Caring for patients with artificial drainage openings through the abdominal wall.

Nurse Recruiter

Seeking, interviewing, and hiring new employees.

Nurse Health Educator

Providing specific health care teaching to patients and their families. May also include community education.

Quality Assurance Coordinator

Identifies and evaluates health care standards.

Utilization Review Coordinator

Evaluates appropriateness of patient hospitalizations and lengths of stay.

Community/Outpatient Setting

Nurses have many opportunities to work outside hospitals. Hospital-acquired skills transfer very easily to these other areas. Some areas include:

School

Providing on-site health care and education at school-based clinics.

Business and Industry

Treating job-related illnesses or injuries and providing preventative health education.

Home Health

Care of patients requiring hospital discharge follow-up.

Hospice Care

Care of patients with terminal illnesses.

Rehabilitation Center

Caring for patients recovering from debilitating diseases or injuries.

(See *Nurses* on page 12)

The History of HCTP

The Health Careers Training Program (HCTP) facilitates the collaboration of public and private partnerships among health care employers, health training institutions, and funding sources for the purpose of meeting the State's need for adequately trained health care workers.

The objective of HCTP is to identify the number and types of health care workers needed to ensure adequate public access to health care services in targeted communities. This will be accomplished by creating collaborations among appropriate stakeholders. Through these collaborations HCTP will be able to identify health care employers' current and future job vacancies/needs; identify and assist in the development and expansion of needed health care training programs; and assist in identifying and accessing funding sources to train and/or place needed health care workers.

There are several categories under the major field of Health and Health care Services. One of these categories is the allied health care grouping of approximately 250 mid-level, entry-level, and auxiliary (i.e., clerical, housekeeping) job classifications that are emerging as the demand and critical occupations of the industry.

Allied health care is defined as any duty and/or function that

support the primary care professionals' delivery of health care services. It is these 30 current allied health care job titles emerging job titles that are the scope and focus of the Health Careers Training Program (HCTP). HCTP resides within the Primary Care Resources and Community Development Division, Office of Statewide Health Planning and Development.

Allied health care job classifications have distinct and sometimes overlapping competencies. Educational curricula and training hours vary for each of the job titles. The actual length of training for allied health positions tends to range from a few weeks to eighteen months in order for an individual to obtain his/her respective certificate and/or license to work in non-clinical, clinical, acute, and/or sub-acute environments.

HCTP was originally developed in 1992 when the Office of Statewide Health Planning and Development (OSHPD) entered into a two year interagency agreement with the Employment Development Department to implement a "pilot project" named The California Health Careers Opportunity Project (CHCOP). This project would identify health care employment openings and training needs for California,

focusing on two specific areas:

1. The underrepresented ethnic minorities in health care professions.
2. The language and cultural barriers in providing health care to California's diverse population.

In 1994, OSHPD continued the project and changed the name to the Health Careers Training Project. The project had continued success and in 1996, OSHPD committed to improving access to health care statewide via the Health Careers Training Project.

During this time the project had faced many challenges as changes in Managed Care impacted facilities as well as the growing health care service needs for uninsured families. The emphasis of the project evolved into an economic development and community development approach for allied health care workers statewide.

In 1997, the Health Careers Training Project was re-named the Health Careers Training Program. The mission became more expansive as it was established to facilitate the collaboration of public and private partnerships among health care employers, health training institutions, and funding sources to meet the State's need for appropriately trained health care workers.

(History, from page 7) (See History on page 10)

As part of the Health Careers Training Program's attempt to provide you with information regarding allied health occupations, each issue will focus on at least one allied health profession, and will include specific information regarding: job duties, working conditions, employment trends, salaries, entrance requirements, and advancement opportunities.

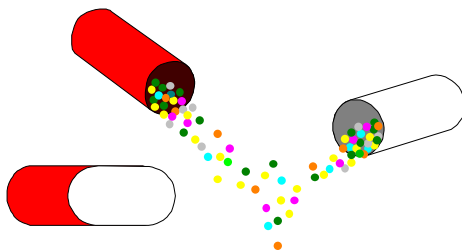
Pharmacy Technicians (Hospital)

THE JOB

Hospital Pharmacy Technicians, also called Pharmacy Assistants, perform a wide range of clerical and technical tasks necessary to the operation of a hospital pharmacy. They enable the licensed pharmacists to concentrate on professional functions, such as providing medical staff and patients with information and advice.

The primary responsibility of most technicians is to prepare, package, and distribute medications prescribed by physicians for hospitalized patients. Orders for such medications are written by physicians on the patient's chart. Copies of these "chart orders" are sent daily from all the nursing stations to the pharmacy. After pharmacists review the order for errors or potential problems, technicians transcribe the relevant information about the patient and the prescribed medications onto the patient's profile. These profiles are the basic source of information used by technicians for filling

medication orders and must be continually updated as new orders are received. Transcribing to the profile from the chart order requires an understanding of medical and pharmaceutical terminology and abbreviations. Profiles are sometimes generated by computer, using data entered by technicians combined with data already stored in the computer.



The most common method used by technicians for preparing and distributing prescribed medications is known as "unit dose distribution." Each day, technicians assemble a complete 24-hour supply of medications for every hospital patient. Individual doses of each drug are separately packaged and labeled. All of these unit-doses are then placed in the patient's medication cassette.

Commonly used medications are usually pre-packaged in unit-dose form by drug manufacturers, so that technicians need only select the right package. When pre-packaged unit-doses are not available, technicians must measure or count the prescribed amount from bulk containers and create the package themselves — generally with the aid of a unit-dose packaging device. When unit doses are to

be administered by injection, technicians transfer the medication from vials, using aseptic techniques, to the appropriate number of sterile, disposable syringes.

Another form in which medications are frequently administered to hospital patients is through intravenous (IV) solutions. To prepare these IV admixtures, technicians measure and add drugs or nutrients (IV additives) to commercially prepared intravenous solutions. All mathematical calculations must be accurate and very precise, and extreme care must be taken to maintain sterile conditions and aseptic techniques.

Inventory control is another area of responsibility for some technicians. Technicians keep track of medications, chemicals, and other supplies, and prepare orders for additional quantities when stock gets low. They also receive incoming goods, check invoices against quantities received, and put supplies into storage.



Additional duties performed by Pharmacy Technicians may include delivering drugs and pharmaceutical supplies to nursing stations, keeping pharmacy work areas clean and orderly, assisting in the

(See *Technicians* on next Page)

(*Technicians*, from previous page)
processing of health insurance forms, and responding to telephone questions or requests from other hospital personnel.

WORKING CONDITIONS

Hospital pharmacies are normally neat, clean, and well-organized. Pharmacy Technicians work under the close supervision of licensed pharmacists. Although the work is often repetitive, it is highly precise, demanding good judgment, accuracy, and constant attention to detail. The work also requires extreme care in handling and storing drugs and chemicals. Physical demands may include moving heavy boxes and delivery carts weighing up to 40 pounds.

In some hospitals, Pharmacy Technicians are represented by the Hospital and Institutional Workers Union or other labor organizations.

EMPLOYMENT OUTLOOK

The following information is from the California Projections of Employment published by the Labor Market Information Division. The figures represent the combined occupations of Pharmacy Technicians and Pharmacy Assistants which include Pharmacy Technicians (Hospital).

Estimated number of workers in 1990 — 6,060

Estimated number of workers in 2005 — 7,440

Projected Growth percentage 1990-2005 — 23%

Estimated openings due to separations by 2005 — 1,360

(These figures do not include self-employment nor openings due to turnover.)

Because of the increased pharmaceutical needs of a larger, older population, growth in this occupation will be almost as fast as the average for all others in the state. Other factors likely to increase the demand for Pharmacy Technicians include scientific advances that will make more drug products available and developments in administering medication. Opportunities will be best in outlying geographic areas. Pharmacy Technician training programs may cause a labor surplus in the areas where they are offered.

WAGES, HOURS AND FRINGE BENEFITS

Wages for entry-level Pharmacy Technicians can be up to \$13.25 per hour. Experienced technicians currently earn up to \$21.50 per hour. Most hospital pharmacies remain open 16 to 24 hours per day, seven days a week. Pharmacy Technicians may work day, evening, or night shift. For some positions, 10-hour shifts are required. A full-time workweek is five days, 40 hours, including rotating weekends. Many jobs are part-time or per diem/on-call. Benefits include paid vacation, sick leave, medical and dental insurance, and retirement plans. Many hospitals pay vision insurance.

ENTRANCE REQUIREMENTS AND TRAINING

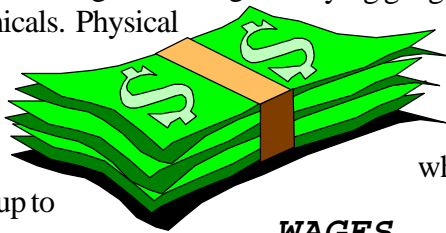
Pharmacy Technicians must have the minimum of a high school diploma or the equivalent and no history of drug abuse. While some employers will train and up-grade hospital pharmacy clerical assistants or ward clerks, most hospitals require completion of a recognized Pharmacy Technician training program or one to two years of equivalent hospital experience. This combination of training and experience usually must include preparation of unit doses and IV admixtures. Hospitals also expect applicants to have some degree of familiarity with medical and pharmaceutical terminology and metric measurements. Typing speed of 30 to 40 words per minute, good communications skills, and sufficient math ability to perform pharmaceutical calculations are also required. Familiarity with computer data entry is desirable.

Pharmacy Technicians should have above-average manual dexterity, good eyesight and normal color vision. The ability to work under pressure, and to deal with patients, nurses, and physicians is essential.

While in high school, students interested in becoming Pharmacy Technicians should take courses in typing, math through algebra, and the physical sciences. Chemistry laboratory classes are especially useful. Currently there are six community colleges in California that have Pharmacy Technician training programs:

- Chabot College, Hayward
- Foothill College, Los Altos Hills
- Santa Ana College, Santa Ana

(See *Technicians* on page 10)



(*Technicians*, from page 9)

- Cerritos College, Norwalk
- Saddleback College, Mission Viejo
- Santa Monica City College, Santa Monica

All six colleges offer one- to two-year certificate programs and optional two-year associate degree programs. Formal training for Pharmacy Technicians is also available at several Veterans Administration Hospitals in California. In addition, all of the military services train selected individuals to be Pharmacy Technicians/Pharmacy Specialists.

One must be registered with the California State Board of Pharmacy in order to seek employment in California. An applicant for registration must meet one of the following requirements: (A) At least an associate of arts degree in a field of study directly related to the duties of a Pharmacy Technician. Directly related fields of study include: health sciences, biological sciences, physical sciences, or natural sciences; (B) Completion of a training course accredited by the American Society of Hospital Pharmacists, training provided by a branch of the federal armed forces, or any other course that provides a minimum of 240 hours of theoretical and practical instruction, provided that at least 120 of these hours are in theoretical instruction; (C) Eligible to take pharmacist license examination; (D) At least one year's experience including 1,500 hours performing the tasks of a Pharmacy Technician as outlined in Section 1793.2 of the California Code of Regulations; (E) A minimum of 1,500 hours experience within the last

three years working in a community or outpatient pharmacy performing the tasks outlined in Section 1793.2 of the California Code of Regulations. The registration includes a fee of \$25 plus \$32 for fingerprint processing.

FINDING THE JOB

Students in Pharmacy Technician training programs are sometimes hired after graduation by one of the hospitals in which they performed their supervised clinical work experience. Hospitals frequently advertise openings in newspaper want ads. Some also recruit through private employment agencies or the California Employment Development Department Job Service. Job seekers should also apply directly to hospital personnel departments throughout the state. For Veterans Administration Hospital positions, applicants must pass a Federal civil service examination.

ADDITIONAL SOURCES OF INFORMATION

American Association of Pharmacy Technicians
P.O. Box 1109
Madison, WI 53701

California Society of Hospital Pharmacists
725 30th Street, Suite 208
Sacramento, CA 95816
(916) 447-1033



Source: State of California, Employment Development Department Labor Market Information Division, Information Services Group, (916) 262-2162.

In 1998, focus was placed on an economic development/community development approach to establish collaborative partnerships with all appropriate stakeholders who were interested in fostering improvements in training health care workers and access to health care. Priscilla Gonzalez-Leiva, RN, Deputy Director, has been the driving force for the HCTP's vision as staff continues its commitment to improve access to health care, program development, and system tracking processes.

HCTP is unique, as it is the singular "industry focused" workforce development program in the State of California Health and Human Services Agency. HCTP is flexible and uses an "open" approach in meeting new partners and including them in projects. Staff invites established partners as well as any new partners that have the potential to enhance the collaborative and contribute to employer needs.

HCTP staff researches an array of data, information, statistics published by other state agencies, legislation impacting business and industry, communities, and health care services. HCTP networks with all appropriate stakeholders, identifies funding, and brings all interested stakeholders together to establish a collaborative partnership. HCTP seeks to involve all partners' expertise to identify, recruit, train, and place individuals in allied health care industry jobs pre-identified by the HCTP staff.

Source: OSHPD/HCTP Annual Report 1998-1999.

What is Public Health?

The mission of public health is to “fulfill society’s interest in assuring conditions in which people can be healthy.” (Institute of Medicine, Committee for the Study of the Future of Public Health, Division of Health Care Services. 1988. *The Future of Public Health*. National Academy Press, Washington, DC)

Public health carries out its mission through organized, interdisciplinary efforts that address the physical, mental, and environmental health concerns of communities and populations at risk for disease and injury. Its mission is achieved through the application of health promotion and disease prevention technologies and interventions designed to improve and enhance the quality of life.

“Health care is vital to all of us some of the time, but public health is vital to all of us all of the time.”

– C. Everett Koop

Health promotion and disease prevention technologies encompass a broad array of functions and expertise, including the three core public health functions:

- assessment and monitoring of the health of communities and populations at risk to identify health problems.
- formulating public policies, in collaboration with community and government leaders, designed to solve identified local and national health problems and priorities.
- assuring that all populations have access to appropriate and cost-effective care, including health promotion and disease

prevention services, and evaluation of the effectiveness of that care.

The Ten Essential Public Health Services*

- 1.** Monitor health status to identify community health problems.
- 2.** Diagnose and investigate health problems and health hazards in the community.



- 3.** Inform, educate, and empower people about health issues.
- 4.** Mobilize community partnerships to identify and solve health problems.
- 5.** Develop policies and plans that support individual and community health efforts.
- 6.** Enforce laws and regulations that protect health and ensure safety.
- 7.** Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
- 8.** Assure a competent public health and personal health care workforce.
- 9.** Evaluate effectiveness, accessibility, and quality of personal and population-based health services.

- 10.** Conduct research to locate new insights and innovative solutions to health problems.

How is Public Health Different from the Other Health Professions?

There are many distinctions between public health and the clinical health professions. While public health is comprised of many professional disciplines such as medicine, dentistry, nursing, optometry, nutrition, social work, environmental sciences, health education, health services administration and the behavioral sciences, its activities focus on entire populations rather than on individual patients.

For example, doctors treat individual patients one-on-one for a specific disease or injury. Thus, doctors provide medical care only part of the time — namely, when patients are ill. Public health professionals on the other hand, monitor and diagnose the health concerns of entire communities and promote practices and behaviors to assure our populations stay healthy. Thus, communities need continuous public health efforts to stay healthy.

For example, this population-based approach to health:

- Assures our drinking and recreational waters are safe.
- Prevents pollution of our air and land through enforcement of regulatory controls and management of hazardous wastes.
- Eradicates life threatening diseases such as smallpox and polio.

(See *Public Health* on page 14)

Why Choose a Graduate Degree and Career in Public Health?

Public health careers offer something for everyone. Epidemiology and biostatistics involve mathematics and modeling. Environmental health includes a wide range of science skills. Health administration and community health sciences are careers which involve being with people. Health education is a teacher's field. Health policy includes a political component.

Perhaps never in the history of our country has there been a more exciting time to pursue a career in public health. Why? Because....

- Most experts agree that major advances in improvement of health over the next decades will not come from new medical findings or cures, but rather the broader development and application of population-based prevention programs.

- Despite the lack of health care reform at the national level, our health services delivery systems are undergoing rapid change. The implementation of capitated health plans throughout the country is changing the role of health care providers and public health agencies alike. Greater emphasis is being placed on health promotion and disease prevention as a means to reduce the costs of care by improving the health of our populations. These changes have created a broad array of new opportunities for professionals with advanced training in public health.

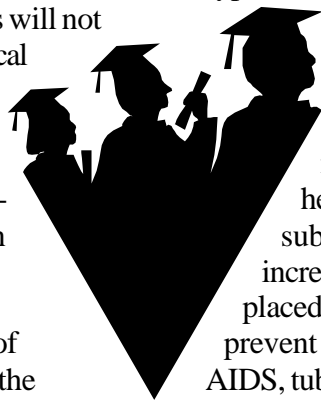
- As the public has become better informed about the effects of toxic wastes and pollutants on their health, greater emphasis is being placed on assuring the safety of our communities as well as worker health and safety. As a result, there is a growing demand for experts in environmental health and industrial hygiene.

- As more Americans have adopted healthier lifestyles, population growth has slowed, and society is made up of more elderly. Consequently, a greater emphasis on the prevention of chronic diseases such as cancer, hypertension, and heart disease is needed.

- Public health research is focusing more on women's health, and child and substance abuse, and an increased emphasis is being placed on behavioral change to prevent the risk of STDs, HIV/AIDS, tuberculosis, and unplanned pregnancies. Greater emphasis is also being placed on school health and the health of minority and disadvantaged populations.

By becoming a public health professional, you can make a difference.

Source: *The Association of Schools of Public Health* web site: www.asph.org



(Nurses, from page 6)

Nursing/Convalescent Home

Caring for the elderly or chronically ill patients.

Military Service

Caring for individuals and their families in the armed forces. There are more than 120 Air Force medical facilities worldwide. In the United States, the health care system is divided into six geographical regions, each served by medical centers, hospitals, and clinics. Air Force medical facilities serve the local base communities.

Outpatient Clinic/ Doctor's Office

Caring for patients requiring periodic follow-up for non-acute illnesses.

Public Health

Agency dealing with community and governmental health care issues.

International Health

Providing health care in foreign countries and developing nations.

Flight Nursing

Caring for patients being transported by air. The helicopter and its crew can be airborne within minutes after receiving a call for assistance. Transport teams are available day and night, all year. Experienced pilots fly health personnel and health care equipment to most hospitals and accident scenes.



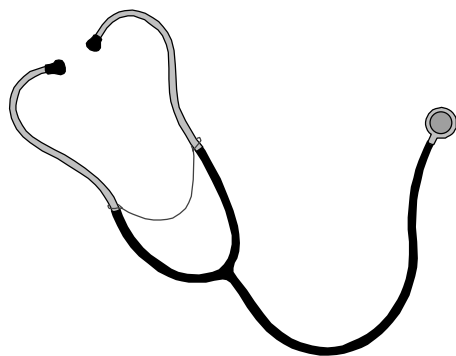
Information taken from: "The Many Roles of Nursing." To request a copy, write to: HPCOP, 1600 Ninth Street, Room 441, Sacramento, California 95814. (916) 654-1730.

Top Ten Reasons To Apply To Medical School Early In The Application Year

Reason Number 10:

The Early Bird Catches the Stethoscope

While some medical schools use a rolling admissions process, and others make their acceptances in one or two batches, it is always an advantage to complete your application earlier in the process rather than later. Consider for example, simply the number of letters of recommendations received during the year. At the end of August last year, 1,777 letters of recommendation were received. At that point, a letter received could be opened, date stamped, entered into computer, and filed into your file, within a four-day period. By the end of October, 5,018 letters were received, and it was taking seven days to complete the above process. As 1999 was beginning, 10,094 letters were received, and the time required getting a letter to its proper place was fourteen days! If you submit your materials in June, as opposed to November, your file will be completed much more quickly, allowing for the interview offer to be extended, and for you to ultimately get an acceptance.



Reason Number 9:

You do the math: September 15 – 104 medical school spots to fill/699 applicants; November 15 – 104 medical school spots to fill/47 offers made/1,919 applicants

Once you complete the AMCAS application, you must then complete your application at each individual school. While the secondary application process varies, many of them require the completion of several essay questions. Do not let an early AMCAS application go to waste because your completion of the secondary application is delayed. Applying to medical school is a marathon process; hang in there for the long run and complete each step in a timely manner.

Reason Number 8:

Do you really want to be doing the application during your winter break?

Many applicants decide that because of the pressing demands of the school year, they will wait until break to complete the secondary applications. This approach not only means that they are late in applying to many schools and miss deadlines entirely at others, but they are also trying to complete the application away from the resources of their campus. This creates problems in accessing a typewriter or computer, needed addresses, the registrar office, and the health professions adviser. Besides, you need a break, and you should return to school refreshed.

Reason Number 7:

Murphy's Law (If something can go wrong, it will go wrong)

Many people, machines, and processes outside of your control are involved in the medical school application process. Yet you are ultimately responsible for ensuring that your application is complete at each step of the process. A chart that indicates the progress of your application at each school is essential, but even the best plans at times are disrupted by events outside of your control. Just a few of the possible challenges are listed here: transcript delays, grades missing, lost mail, letter writers on vacation...and many more!

Reason Number 6:

Murphy's Law (again!)

There are many, many more possible challenges to face: computer entry errors, marking the wrong school on the AMCAS application, failure to sign your AMCAS application, fee check is returned, letters sent to wrong school, mail destroyed, computer crashes, etc. Give yourself the time needed to respond to at least a few of these challenges throughout the process, and then be thankful when everything runs smoothly.

Reason Number 5:

Increase your chance of getting your first choice school

The earlier you apply, the more options you will have. Finding the right match is very important, so apply only to schools you see as

(See *Top Ten* on next page)

(*Top Ten*, from previous page)
good matches. Your health professions advisor can help you decide the schools to which you should apply. By considering factors such as a school's mission, curriculum, distance from your home and family, support resources, environment, and student satisfaction before your application, you can save money and time, not to mention being more prepared for your interviews.

Reason Number 4:

Airfares are cheaper when booked in advance

Applying early in the process can save you money at every step. By applying early to the right schools, you can reduce the overall number of applications and increase your chances of success. The timing is particularly important financially when it is time to schedule your interviews. Early completion leads to earlier interview invitations. You then have greater lead-time in scheduling your airline ticket, often saving significant money. At many schools, with advance notice, you can also arrange to stay overnight with student hosts. This is a great way to save money, and even more importantly, to learn more about the school.

Reason Number 3:

You will be able to answer the question: "What are you going to do next year."

Applying to medical school is a very stressful process. Even though it is often difficult to choose between acceptance offers, it is a great relief to have that first acceptance letter in hand. So, apply early and enjoy the process. Some applicants have particular interests

or needs which lead them to consider the schools with Early Decision programs. The decision to apply via Early Decision is very important, and it must be made only after careful consultation with your health professions advisor and the director of admissions at the medical school.

Reason Number 2:

Your advisors, parents, and conscience will stop nagging you about completing your applications

All those who care about you will be very interested in your progress with your applications. While everyone undoubtedly means well, this adds to the stress of the process. The best way to stop these questions is to finish the applications!

And, the Number 1

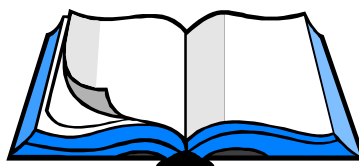
Reason to Apply to Medical School Early in the Application Year

YOU WILL BE A GREAT DOCTOR, AND YOU CAN HARDLY WAIT TO GET STARTED!

Sylvia Robertson

*Director of Medical School Admissions
University of Chicago
Pritzker School of Medicine*

Reprinted with Permission: Kevin Harris, The Road MMEP (Volume 3, No.1) Fall 1999, 2450 N.W., Washington, D.C. 20037-1127. (202) 828-0401.



(Public Health, from page 11)

- Controls and prevents infectious diseases and outbreaks such as measles, HIV/AIDS, tuberculosis, and the Ebola virus.
- Reduces death and disability due to unintentional injuries through the formulation of policies designed to protect the safety of the public, such as seat belt and worker safety laws.
- Facilitates community empowerment to improve mental health, reduce substance abuse and social violence.
- Promotes healthy lifestyles to prevent chronic diseases such as cancer, heart disease and obesity.
- Educates populations at risk to reduce sexually transmitted diseases, teen pregnancy and infant mortality.
- Assures access to cost-effective care.
- Evaluates the effectiveness of clinical and community-based interventions.

*Adopted: Fall 1994, Source: Public Health Functions Steering Committee, Members (July 1995): American Public Health Association·Association of Schools of Public Health·Association of State and Territorial Health Officials·Environmental Council of the States·National Association of County and City Health Officials·National Association of State Alcohol and Drug Abuse Directors·National Association of State Mental Health Program Directors·Public Health Foundation·U.S. Public Health Service — Agency for Health Care Policy and Research·Centers for Disease Control and Prevention·Food and Drug Administration·Health Resources and Services Administration·Indian Health Service·National Institutes of Health·Office of the Assistant Secretary for Health·Substance Abuse and Mental Health Services Administration

Source: The Association of Schools of Public Health web site: www.asph.org

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